INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2005/001222 A. CLASSIFICATION OF SUBJECT MATTER IPC 7 F16L1/024 F16L1/12 F16L3/00 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) F16L IPC 7 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal C. DOCUMENTS CONSIDERED TO BE RELEVANT Relevant to daim No. Citation of document, with indication, where appropriate, of the relevant passages Category * 1,2,5,6, US 4 147 455 A (BERTACCINI GIANPAOLO) X 8,10,11 3 April 1979 (1979-04-03) column 1, line 63 - column 2, line 38; 3,9, 12-16 figures 1,2 1,2,8,11 US 2 405 819 A (DUSTMAN HERMAN U) X 13 August 1946 (1946-08-13) figure 2 12, 15, 16 US 4 265 566 A (SCODINO AMBROGIO) 5 May 1981 (1981-05-05) column 3, line 30 - column 4, line 34; figures 3,4 3,9,13, US 4 929 124 A (LOCKWOOD GEORGE S) Y 29 May 1990 (1990-05-29) figures 2a,2b,3 Patent family members are listed in annex. Further documents are listed in the continuation of box C. Special categories of cited documents: *T* later document published after the international filing date or priority date and not in conflict with the application but 'A' document defining the general state of the art which is not cited to understand the principle or theory underlying the considered to be of particular relevance invention "E" earlier document but published on or after the international "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to filing date involve an inventive step when the document is taken alone "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another document of particular relevance; the claimed invention diation or other special reason (as specified) cannot be considered to involve an inventive step when the document is combined with one or more other such docu-*O* document referring to an oral disclosure, use, exhibition or ments, such combination being obvious to a person skilled other means in the art. document published prior to the international filing date but *&* document member of the same patent family later than the priority date claimed Date of mailing of the international search report Date of the actual completion of the international search

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Name and mailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl.

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INTERNATIONAL SEARCH REPORT

International Application No
PCT/EP2005/001222

Category *	Cliation of document, with Indication, where appropriate, of the relevant passages	Relevant to claim No.	
A	SU 555 253 A (GALI-I GALIULLIN V F) 25 April 1977 (1977-04-25) figure 1	1,11	
		-	
		-	
		·	

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No
PCT/EP2005/001222

Patent document cited in search report		Publication date		Patent family member(s)	Publication date
US 4147455	A	03-04-1979	IT AU BE BR CE DK FR GB IF LU NL	1078683 B 511844 B2 3232078 A 863039 A1 7800345 A 1086288 A1 2802111 A1 15878 A ,B, 376981 A ,B, 2377567 A1 1564493 A 46029 B1 53090017 A 78875 A1 7800626 A ,B,	08-05-1985 11-09-1980 19-07-1979 18-07-1978 05-09-1978 23-09-1980 20-07-1978 19-07-1978 25-08-1981 11-08-1978 10-04-1980 26-01-1983 08-08-1978 09-06-1978 20-07-1978
US 2405819	Α	13-08-1946	NONE		
US 4265566	A	05-05-1981	IT AR AU BE BR CDE DK ER GB IE JP NL NO NZ PT	1097789 B 223483 A1 522881 B2 4484679 A 875104 A1 7903846 A 1103468 A1 2912781 A1 95079 A ,B, 479941 A1 2432127 A1 2027156 A ,B 48019 B1 55020976 A 63052274 B 7902155 A 790915 A ,B, 189828 A 69401 A	31-08-1985 31-08-1981 01-07-1982 31-01-1980 26-09-1979 15-04-1980 23-06-1981 07-02-1980 29-01-1980 22-02-1980 13-02-1980 13-02-1980 14-02-1980 18-10-1988 30-01-1980 29-01-1980 31-05-1983 01-04-1979
US 4929124	A	29-05-1990	EP WO	0527721 A1 9115697 A1	24-02-1993 17-10-1991
SU 555253	Α	25-04-1977	SU	555253 A1	25-04-1977